

## Senior Environmental Scientist (Specialist)

### Knowledge, Skills, Abilities, and Personal Characteristics Statements

1	Knowledge of State and federal environmental and local public health laws and regulations.
2	Knowledge of the ecological processes and principles to make informed decisions when completing project work in support of the department's mission statement.
3	Knowledge of the effects of various agents (e.g., physical, biological, chemical) on human health, natural resources, and the environment.
4	Knowledge of quality assurance and/or quality control procedures for scientific projects.
5	Knowledge of air, land and/or water use principles, planning and practices with reference to their general effect on human health, natural resources, and/or the environment.
6	Knowledge of data collection techniques to ensure the accurate collection of data for research and monitoring activities.
7	Knowledge of land conservation and environmental management principles (e.g., soil, water, forestry, botany, wildlife) to maintain environments and species.
8	Knowledge of scientific research principles and methods to ensure the integrity and validity of collected data.
9	Knowledge of the sciences (e.g., biology, chemistry, physics, microbiology) pertaining to environmental protection and public health.
10	Knowledge of soil and irrigation sciences, biological systems, hydrology, and/or geology as they pertain to resource management, environmental protection and public health.
11	Ability to collect environmental, regulatory, and scientific samples by following data collection procedures and protocols.
12	Ability to conduct and interpret scientific studies and research for environmental analyses.
13	Ability to analyze and interpret scientific data to extract or identify key issues and draw conclusions.
14	Ability to observe, accurately record, and recall pertinent facts and details when conducting investigations, inspections, and research.
15	Ability to identify and reconcile discrepancies in data and information pertaining to program/project activities.
16	Ability to read and evaluate written documents of varying levels of complexity for consistency with the goals, policies, and procedures of environmental programs.
17	Ability to extract specific, relevant data and information from a larger body of material to provide clear and concise summaries to interested parties.

18	Ability to exercise sound judgment when making decisions in accordance with program or work unit goals and objectives.
19	Ability to review and interpret scientific and environmental reports to make recommendations based upon documented data and information.
20	Ability to analyze situations to determine and implement appropriate courses of action.
21	Ability to develop innovative solutions for difficult and/or sensitive environmental management problems.
22	Ability to apply scientific methods or principles to test hypotheses and/or conduct analyses.
23	Ability to handle and analyze a large variety of detailed data.
24	Ability to interpret and apply provisions of environmental laws and regulations when completing project work.
25	Knowledge of the basic principles of statistical analysis methods and techniques to interpret and understand research and environmental documents.
26	Ability to perform basic statistical analyses (e.g., mean, frequencies) to determine central tendencies among environmental statistics.
27	Ability to interpret quantitative or statistical data in order to extract key information and make valid inferences.
28	Ability to perform basic mathematical computations (e.g., addition, subtraction, multiplication, division) to perform calculations.
29	Knowledge of proper spelling, grammar, punctuation, and sentence structure to ensure that written materials prepared and reviewed are complete, concise, and error-free.
30	Ability to edit written documents to ensure proper use of grammar, punctuation, sentence structure, and spelling.
31	Ability to write correspondence (e.g., letters, memos, email) to communicate with various audiences effectively.
32	Ability to write complex scientific and technical documents (e.g., reports, project summaries, program status reports, journal papers) to clearly communicate methods, analyses, findings, and recommendations.
33	Ability to write detailed and specific procedures and processes outlining the steps to follow in completing departmental, program, and/or project tasks.
34	Ability to use tact and diplomacy when working with people with different cultures, perspectives, and viewpoints.
35	Ability to communicate effectively in person to staff, management, the public, and other interested parties.
36	Ability to prepare oral presentations to audiences with varying levels of understanding.
37	Ability to deliver oral presentations to audiences with varying levels of understanding.
38	Ability to effectively negotiate and compromise when resolving issues involving differing opinions and viewpoints.

39	Ability to maintain the confidentiality of sensitive and confidential information obtained through the course of completing assignments.
40	Ability to facilitate meetings in a manner that ensures the discussion stays focused on the topic and encourages active participation by all attendees.
41	Ability to establish and maintain cooperative working relationships with management, staff, public entities, and interested parties.
42	Ability to collaborate and coordinate program activities with others.
43	Ability to lead and motivate others in the completion of program and work activities.
44	Ability to adapt to changes in priorities and assignments to address changing business needs.
45	Ability to work in a variety of environments (e.g., laboratory, rough terrain, inclement weather, extreme temperatures) in a safe manner.
46	Ability to work independently on assigned projects with minimal supervision.
47	Ability to effectively manage time with multiple assignments and deadlines to ensure timely completion of projects.
48	Ability to manage projects including project planning/development, organization evaluation, and cost of time and materials to establish realistic timelines for project completion.
49	Ability to follow written and oral instructions, directions, guidelines, and procedures in the completion of assignments.
50	Ability to apply state and federal rules, regulations, policies, and requirements to protect the environment, public health, and natural resources.
51	Ability to remain fair and unbiased when applying rules, regulations, and policies of State and federal programs.
52	Ability to improve technical knowledge and skills through participation in organized training and/or independent study.
53	Ability to use word processing software to prepare reports, memos, correspondence, and other job-related documents and materials.
54	Ability to use the internet to conduct on-line research and obtain information related to departmental policies, procedures, and resources to complete program or project activities.
55	Ability to use spreadsheet software to create, compile, compute, organize, and present data and statistics for use in reports, departmental webpages, and other tracking activities.
56	Ability to use e-mail to communicate with diverse audiences on matters related to various project and program issues.
57	Ability to use database software to store, retrieve, and analyze data.
58	Ability to use and operate a variety of basic office equipment (e.g., copiers, calculators, telephones, fax machines) in the course of completing assigned work tasks.
59	Ability to use and operate presentation software to develop and deliver presentations.

60	Ability to inspire confidence and effective working relationships with employees, managers, and leaders in government and industry to ensure the unit, operations, and activities run smoothly.
61	Ability to perform oversight on projects ensuring that end products or services are delivered on schedule, within the established budget, and in compliance with applicable laws.
62	Ability to maintain high ethical standards in completing all assignments and projects.